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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,008	01/11/2002	Reed J. Blau	1082-035	5219

60794 7590 02/13/2007
TRASKBRITT, P.C./ ALLIANT TECH SYSTEMS
P.O. BOX 2550
SALT LAKE CITY, UT 84110

EXAMINER

FELTON, AILEEN BAKER

ART UNIT	PAPER NUMBER
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1755

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/046,008	BLAU, REED J.	
	Examiner	Art Unit	
	Aileen B. Felton	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-14, 16-25, 68 and 69 is/are pending in the application.
- 4a) Of the above claim(s) 11-14, 20, 21, 23-25, 68 and 69 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10, 16-19 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 11-14, 20, 21, 23-25, 68, and 69 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7/28/2003. Claims 11-14, 20, 21, 23-25, 68, and 69, were all previously withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cioffe (5,449,423).

Cioffe discloses a composition comprising mixtures of potassium nitrate and potassium perchlorate of 35-69.5 % and of size 1-20 microns (col. 4 and 5). The composition also includes an organic acid of formula $C_6H_8O_6$ but can also include compounds with more than 6 carbons at 36% (col. 4 and 5) and binders (col. 2). The claimed organic crystalline particle is not disclosed.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use terephthalic acid (with 8 carbons) since Cioffe discloses that similar compounds to ascorbic acid with more than 6 carbons may be used.

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4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cioffe (5,449,423) as applied to claims 1-8 and 22 above, and further in view of Wise et al (H72).

Cioffe does not disclose or teach the use of phenolphthalein.

Wise et al teaches the use of phenols and acids such as phenolphthalein or terephthalic acid with potassium nitrate as a substitute for black powder.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the phenolphthalein as the organic compound with the compositions disclosed and taught by Cioffe since Wise suggests that it is known organic compound to be used as a fuel and substitution of one fuel for another is obvious.

5. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cioffe (5,449,423) as applied to claims 1-8 and 22 above, and further in view of Weber (5,620,691).

Cioffe does not disclose the specific claimed binder.

Weber teaches the use of PVA a vinyl acetate polymer in a composition that is a substitute for black powder and includes phenolphthalein and potassium nitrate.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the binder as taught by Weber with the composition of Cioffe, since Weber teaches that it is a known binder to be used in a composition that is a substitute for black powder and because Cioffe discloses that binders can be used. The moisture uptake is an inherent property of the taught binder. As to limitations which

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are considered to be inherent in a reference, note the case law of *In re Ludke*, 169 USPQ 563; *In re Swinehart*, 169 USPQ 226, *In re Fitzgerald*, 205 USPQ 594; *In re Best et al*, 195 USPQ 430; and *In re Brown*, 173 USPQ 685, 688.

Response to Arguments

6. Applicant's arguments have been fully considered but they are not persuasive. Applicant argues that Cioffe does not disclose the claimed organic crystalline particles. This is not persuasive since Cioffe does suggest that similar compounds to ascorbic acid with more than 6 carbons may be used. Applicant further argues the combination of Cioffe with Wise and Weber due to the inclusion of phenolphthalein or terephthalic acid and PVA with black powder substitutes.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen B. Felton whose telephone number is 571.272.6875. The examiner can normally be reached on Monday-Friday 6:30-4:00, except alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571.272.1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


AILEEN FELTON
PRIMARY EXAMINER